

MODELS: Sikorsky VS-44-A, 39 PCFbM

T.C. NUMBER: 752 (Approved 7/14/43)

Engine	4 P & W Twin Wasps S1C3G, geared 16:9 with one 3-1/2 N damper and spline coupled type reduction gear
Fuel	100 minimum octane aviation gasoline
Engine limits	Maximum, except take-off (Sea level) 41.5 in.Hg., 2550 rpm (1050 hp) (Straight line manifold pressure variation with altitude to 7500 ft.) 39.5 in.Hg., 2550 rpm (1050 hp) Take-off (two minutes) 48.0 in.Hg., 2700 rpm (1200 hp)

Airspeed limits (True Ind.)

Weight	Level Flight or Climb	Glide or Dive	Flaps Extended (20 degrees)
51809	211 mph (183 knots)	236 mph (205 knots)	144 mph (125 knots)
59534	185 mph (161 knots)	221 mph (192 knots)	144 mph (125 knots)

Ceiling	See approved Operating Manual																					
C.G. range	(310.61) to (321.28)																					
Datum	Bow of hull, 227.37 inches forward of wing root leading edge																					
Leveling means	Plumb at station 687 in the hull																					
Maximum weight	Landing - 51809 lbs. Take-off - 59534 lbs.																					
No. seats	39 (passengers 28 maximum day type, 16 maximum sleeper type, crew 4 to 11)																					
Maximum baggage	9220 lbs. (See NOTE 3)																					
Fuel capacity (Placard)	3820 gallons total (one main tank in wing center section 2590 gallons (324.4), one reserve tank in wing center section 100 gallons (277.8), one tank for auxiliary powerplant 50 gallons (278.0), two outboard center wing tanks 540 gallons each (338.0))																					
Oil capacity	210.75 gallons total (one 52 gallon tank in each outboard nacelle (275), one 52 gallons tank in each inboard nacelle (254), one 2.75 gallon tank on right side of flight deck for auxiliary powerplant (225))																					
Control surface movements	<table border="0"> <tbody> <tr> <td>Elevator trim tab</td> <td>Up 10 degrees</td> <td>Down 20 degrees</td> </tr> <tr> <td>Elevator</td> <td>Up 25 degrees</td> <td>Down 20 degrees</td> </tr> <tr> <td>Aileron trim tab</td> <td>Up 15 degrees</td> <td>Down 15 degrees</td> </tr> <tr> <td>Aileron</td> <td>Up 25 degrees</td> <td>Down 15 degrees</td> </tr> <tr> <td>Rudder trim tab</td> <td>Right 15 degrees</td> <td>Left 15 degrees</td> </tr> <tr> <td>Rudder</td> <td>Right 23.5 degrees</td> <td>Left 23.5 degrees</td> </tr> <tr> <td>Rudder balance tab</td> <td>Right 14.5 degrees</td> <td>Left 14.5 degrees</td> </tr> </tbody> </table>	Elevator trim tab	Up 10 degrees	Down 20 degrees	Elevator	Up 25 degrees	Down 20 degrees	Aileron trim tab	Up 15 degrees	Down 15 degrees	Aileron	Up 25 degrees	Down 15 degrees	Rudder trim tab	Right 15 degrees	Left 15 degrees	Rudder	Right 23.5 degrees	Left 23.5 degrees	Rudder balance tab	Right 14.5 degrees	Left 14.5 degrees
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Serial numbers eligible	4401 and up (See NOTE A)																					
Required equipment	Items 101, 102, 103 and 104																					

SPECIFICATIONS PERTINENT TO ALL MODELS:

Certification basis	Type Certificate NO. 752 (CAR 4a, Transport Category)
Production basis	None (See NOTE A)
Export eligibility	Eligible for export to all countries except Australia and New Zealand, subject to provisions of MOP 2-4.

EQUIPMENT:

Propellers and Propeller Accessories (except De-Icing Equipment)

101. Propellers - Hamilton Standard hubs
33D50, blades 6257A-6 to 6257A-9, inclusive. Diameter 12'7" maximum, 12'3-3/4" minimum. For interchangeable blade models see Propeller Specification No. 749 (NOTE 6). Minimum low pitch setting 21.5 degrees at 42" station.
(See NOTE 2.)

Engine and Engine Accessories - Fuel and Oil System

102. Fuel dump valve installation per
Drawing VS-5371.

Electrical and Radio Equipment

(As noted in approved copy of pertinent report (see NOTE 1).)

Interior Equipment

103. Approved Operating Manual (current issue) (See NOTE 4)

De-Icing Equipment

201. De-Icer installation

A. Wing control surface -
Goodrich C-333

- | | |
|---|------------------|
| (1) Boots and attachments - wing (removable) | 120.0 lbs. (234) |
| (2) Boots and attachments - empennage (removable) | 42.6 lbs. (804) |
| (3) Vacuum pumps and Sep. (removable) | 48.2 lbs. (225) |
| (4) Piping, etc. (fixed) | 110.8 lbs. (365) |

B. Propeller

- | | |
|--|------------------|
| (1) Four slinger rings (Hamilton 54713A) (removable) | 4.0 lbs. (186) |
| (2) Pump, tank, piping, etc. (removable) | 24.3 lbs. (247) |
| (3) 20 gallon de-icer fluid (removable) | 143.8 lbs. (247) |
| (4) Hull ice protection plates (removable) | 25.0 lbs. (179) |

Miscellaneous (not listed above)
104. and 102. Additional equipment as noted
in approved copy of pertinent
report (see NOTE 1).

NOTE A. Prior to original certification, each aircraft must satisfactorily pass:

- (a) An inspection for workmanship, materials, and conformity before any covering, metal priming or final finish is applied. All woodwork may be varnished.
- (b) A final inspection of the completed aircraft.
- (c) A check of the flight characteristics.

NOTE 1. Weight and Balance Report including list of equipment included in certificated weight empty, and loading instructions when necessary, must be submitted for each aircraft with original inspector's report and each subsequent report covering change in effective equipment.

NOTE 2. Continuous operation of engines between 1400 and 1600 rpm should be avoided when Hamilton Standard 33D propellers are installed.

NOTE 3. Maximum capacity of baggage compartments:

	Vol.Cap. Cu.ft.	Wgt.Cap. Lbs.	Hor. Arm
Hull front compartment Sta. 102 to 166 - left	56	2250	(134)
Hull front compartment Sta. 102 to 166 - right	60	2250	(134)
Hull rear compartment Sta. 768 to 850 - left	13	400	(809)
Wing compartment - left	200	2160	(329)
Wing compartment - right	200	2160	(329)

NOTE 4. The following placard shall be placed on the instrument panel in full view of the pilot:

"This airplane shall be operated in accordance with the C.A.A. Approved Operating Manual for Sikorsky Model VS-44-A which shall be carried in pilots' compartment at all times."